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ABSTRACT

Training behavioral consultants in the school psychology field has emerged as a high priority, with most efforts centering on training consultants to assist teachers in solving children's academic and behavioral problems in the regular classroom. With the growing success of consultation procedures in applied settings, a corresponding need has developed for effective training of behavioral consultants to work with special education teachers whose students experience more severe academic and social problems. This project involved a preservice training program in which five school psychology graduate students were required to master such behavioral consultation skills as problem identification, problem analysis, intervention strategies, and treatment evaluation. These students then served as consultants to five special education teachers of severely emotionally distured children. Four dimensions of the preservice training program were evaluated: (1) student acquisition of specific consultation skills; (2) teachers' implementation of intervention programs developed through the consultation process; (3) individual programs implemented with children identified as severely emotionally disturbed; and (4) the training program itself, by comparing it to a matched control sample in the public school. Implications for future training of school psychologists and resolving barriers in working with teachers in applied settings are presented. A five-page reference list is provided. (NB)

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PREPARATION OF SCHOOL PSYCHOLOGISTS TO SERVE AS CONSULTANTS FOR TEACHERS OF EMOTIONALLY DISTURBED CHILDREN

CG 020 691

Submitted by

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ABSTRACT

Training behavioral consultants in the school psychology field has emerged as a high priority in recent years. Most efforts have centered on training consultants to assist teachers in their efforts to solve children's academic and behavioral problems in the regular classroom. This traditional form of consultation has often been referred to as "prereferral intervention." With the growing success of consultation procedures in applied settings, a corresponding need has developed for effective training of behavioral consultants to work with special education teachers whose students experience more severe academic and social problems. This project involved a preservice training program in which five school psychology graduate students were required to master such behavioral consultation skills as problem identification, problem analysis, intervention strategies, and treatment evaluation; these students then served as consultants to five special education teachers of severely emotionally disturbed children. Four dimensions of the preservice training program were evaluated. First, the project documented student acquisition of specific consultation skills. Second, the project monitored teachers' implementation of intervention programs developed through the consultation process. Third, the project documented the evaluation of individual programs implemented with children identified as severely emotionally disturbed. Finally, the project evaluated the training program by comparing it to a matched control sample in the public school. Implications for future training of school psychologists and resolving barriers in working with teachers in applied settings are presented.

PREPARATION OF SCHOOL PSYCHOLOGISTS TO SERVE AS

CONSULTANTS FOR TEACHERS OF EMOTIONALLY DISTURBED CHILDREN

Consultation is rapidly becoming a major role function of school psychologists in applied settings (Smith & Lyons, 1985). While it has long been a part of service delivery in educational settings, only recently has it received attention in training programs and in the research literature. Reschly (1976) surmised that the term "consultation" has been used to describe nearly any contact that a school psychologist has in the schools. Since that observation, the term has been further clarified and increased research activity has provided an empirical base for consultation as an effective means of service delivery (Medway, 1979, 1982; Medway & Updyke, 1985).

The preservice training of behavioral consultants in the school psychology/special education field is a high priority for several reasons. To begin with, consultation has been accepted and promoted as a major service delivery model in school psychology (Gutkin & Curtis, 1982). However, in 1981, 60 percent of school psychology training programs did not offer a course in consultation; of the programs offering consultation course work, only 27 percent required a practicum (Meyers, Wurtz, & Flanagan, 1981). Meyers et al. (1981) also found that most consultation course work occurred in doctoral programs. Second, consultation has been oriented towards designing and implementing intervention programs in applied settings, and therefore has potential for immediate positive impact on the educational experiences of handicapped children. In this regard, consultation offers an alternative to practitioners interested in developing competencies beyond the more traditional assessment role (Idol-Maestas,

1983). Third, consultation, and especially behavioral consultation, gained increased support in empirical research across a wide variety of problems in regular education settings (Bergan & Kratochwill, in press; Gresham, 1985).

Four major models of consultation are identified in the professional literature: mental health consultation (Caplan, 1970); organization development consultation (Schmuck & Miles, 1971); problem centered consultation (Gutkin & Curtis, 1982); and behavioral consultation (Bergan, 1977). Problem-centered and behavioral-consultation models are very similar; both are based on behavioral principles and involve a problem-solving process.

Writers associated with each of the models emphasize that consultation is an indirect means of providing psychological and educational services; they differ in theoretical bases as well as in specific strategies and goals. The majority of empirical research has focused on behavioral consultation (Gresham & Kendall, 1987).

Behavioral consultation is conceptualized as a collegial problem-solving process between a consultant (i.e., the school psychologist) and a consultee (a parent or teacher). In general, the consultee reports difficulty with a client (usually a student/child). The format involves a series of interviews, each with specific goals. The first stage involves a Problem Identification Interview (PII), in which the consultant emphasizes the selection of a target behavior and invokes a baseline data-collection procedure on a child's problem. The second stage involves the Problem Analysis Interview (PAI), in which baseline data are examined, antecedents and consequences are discussed, and a plan of intervention is developed. The plan is put into action during a third stage, plan implementation.

Although no interview is conducted during this stage, some contact between the consultant and consultee may occur. The fourth stage of consultation involves the Treatment Evaluation Interview (TEI), in which the results of the intervention are discussed and modifications are made as necessary. Upon satisfaction of both the consultant and consultee, the consultation relationship is terminated.

Several potential barriers to the implementation of consultation in the schools have been identified; they pertain to levels of consultant and consultee training, the acceptability of consultation, consultant-consultee relationship factors, and the identification of target behaviors in consultation (Kratochwill & VanSomeren, 1985). With regard to the training of psychologists as consultants, literature reviews (e.g., Gallessich, McDermott, Long, & Jennings, 1986) indicate that researchers generally fail to specify the skills or mastery criteria for teaching consultation, although training criteria have been made more explicit in some research in the training of counseling and therapy skills (Ford, 1979). Behavioral consultation has been linked to a competency-based approach (Kratochwill & Bergan, 1978; Kratochwill & VanSomeren, 1985) and therefore lends itself to the development of specific criterion skills in training. These objectives have been operationalized (Bergan, 1977; Bergan & Kratochwill, in press) and focus on the consultant's ability to elicit the specific information necessary in each phase of the consultation process. Since these criteria have been established, training consultants to a minimal level of competence can be accomplished and documented.

Another barrier to the effective implementation of consultation is the integrity of treatment, that is, the ability to ensure that the treatment

(consultation process) is carried out as intended (Peterson, Homer, & Wonderlich, 1982; Yeaton & Sechrest, 1981). The use of a standardized consultation format may increase the likelihood of accurate implementation of consultation (Kazdin, Kratochwill, & VandenBos, 1986). Standardization of the consultation process involves the development of formal interview protocols, including standardized instructions for administering the interview, recording protocols, and scoring criteria. This type of standardization permits the systematic training of consultants to elicit certain verbal responses from consultees and record those responses on a standard form. The use of a standardized approach further enables consultants to complete the interview phase of consultation successfully.

There is some evidence to suggest that without a standardized assessment format, behavioral assessors do not identify target behaviors reliably (Hay, Hay, Angle, & Nelson, 1979). In behavioral consultation, a checklist has been developed that assists the consultant (or independent rater) in identifing the point at which specific interview goals have been met (Kratochwill & Bergan, in press). With this form the consultation interview can be scored by an independent rater or self-monitored by the consultant. Use of the interview checklist should enable the consultant to address the necessary items in each phase of consultation, thereby increasing the integrity of the consultation process.

Development of a standardized consultation format also should facilitate consultant training in school psychology programs and in field or applied settings (Verberg & Repucci, 1986). Reviews of the behavioral consultation literature indicate that didactic training alone may not be adequate (Allen & Forman, 1985; Ford, 1979). A recent study (Miltenberger &

Fuqua, 1985) suggests that training manuals can teach behavioral assessment interview skills as effectively as an individualized instruction program (including modeling, rehearsal, and feedback). In another study, Whang, Fletcher, and Fawcett (1982) used a program consisting of written instructions, practice, and performance feedback to train a low-income community-service staff in counseling skills. They found evidence of generalization across clients, problems, and time. Likewise, Iwata, Wong, Riordan, Dorsey, and Lau (1982) found that a training package of written materials, classroom instruction practice, and quizzes improved therapists' interviewing skills, both in analogue and follow-up clinical settings.

A recent line of competency-based training research has also focused on the administration of intelligence tests. Fantuzzo, Sisemore, and Spradlin (1983) developed an instrument that lists criteria for establishing a minimal competency level for administering the Wechsler Intelligence Scale for Children Revised (WISC-R). They then used a three-component package (didactic, observations of a model, and rehearsal with feedback) to train graduate students to use the WISC-R at a minimal (90 percent) level of competence. In a more recent study (Moon, Fantuzzo, & Gorsuch, 1986), the competency-based training program was found to be more effective and cost-efficient than some existing training models employed in internship settings.

Previous training research in behavioral consultation (Brown, Kratochwill, & Bergan, 1982) evaluated a program designed to teach problem identification skills. Specifically, four graduate students were trained in problem-identification interview skills and their performance was analyzed before and after training in analogue situations. The training components

of this study included written outlines, a videotape model with prompts and explanations, and feedback sessions. The training package was found to be effective for all subjects and generalized across time (with a two month follow-up assessment).

Kratochwill, VanSomeren, and Sheridan (1987) developed a training package to teach subjects consultation interview skills in three phases of behavioral consultation: problem identification, problem analysis, and treatment evaluation. In the first experiment, four subjects were exposed to a training manual and viewed videotaped interview models. In the second study, the videotapes were not used, but all other components remained intact. The third study used the training manual to teach the skills to two practicing school psychologists, who then used the interview guidelines and format presented in the manual in an actual case in their schools. Results of all three studies indicated that the training package and its variations were an effective and cost-efficient means of providing interview training.

Despite the growing enthusiasm and empirical support for consultation approaches, most school psychologists have been trained to work with regular education personnel. The vast majority of training programs in school psychology that teach specific consultation skills do so in the context of a preventive role with regular education students. That is, school psychologists in preservice training are taught to deliver consultation services to regular classroom teachers in the hope that intervention programs might be established in the regular classroom and thereby reduce the number of placements in special education programs. In this project, consultation was reconceptualized as a service for children already identified as needing special education services and, in particular, for

children identified as severely emotionally disturbed and placed in special education classrooms. This population has received no attention in the consultation literature, either in terms of preservice preparation or empirical investigation (Bergan & Kratochwill, in press). Thus, most school psychologists trained as consultants have not been prepared to work with special education personnel who, in turn, work with severely emotionally disturbed children in public school settings.

This project's purpose was to systematically replicate and extend previous empirical work of Brown, et al. (1982) and Kratochwill, et al. (1987) in the development of a training package that can be used to teach behavioral consultation skills. The training package was replicated with new subjects (i.e., children identified as displaying severely emotionally handicapping conditions) to determine whether a similar outcome would be achieved. In addition, if consultation training is to be adopted widely in school psychology training programs, an important issue is whether the effectiveness of teaching specific consultation skills to preservice graduate students in school psychology could be replicated.

In the latter case, the study was also designed to be a clinical replication or field testing of previous work with practitioners under conditions encountered in naturalistic settings (Barlow, Hayes, & Nelson, 1984). This project component was designed to focus on the generalizability of the analogue training model to work with school psychology graduate students and consultees. Little empirical work has been done in this area and the clinical utility of interview training has not been well established (e.g., Brown, et al., 1982; Miltenberger & Fuqua, 1985; Whang, et al., 1982). While some investigators (i.e., Iwata, et al., 1982) have

demonstrated the relationship between interviewer-consultant questions and parent-consultee responses, no research has demonstrated an influence on actual client behavior. The present project further extends the research of Kratochwill and his associates (1987) regarding an examination of this important outcome measure.

Another purpose of the clinical replication training project was to validate further the standardized interview protocol developed for training and field application. This component of the study involved an analysis of consultant and consultee verbalizations during consultation (Bergan, 1977; Bergan & Tombari, 1976). Consultation objectives outlined in the training manual (Kratochwill & Bergan, in press) were compared to the consultation analysis record (Bergan & Tombari, 1975) for purposes of analyzing message classification categories used in consultation work: source, process, content, and control. Subcategories associated with these message categories also were analyzed. It was expected that the graduate students trained in consultation with the training manual would meet expected criteria for consultant verbalizations as outlined by Bergan (1977) and that these verbalizations would correspond generally to successful consultation outcomes.

Method

Subjects

The project involved three categories of subjects: student-consultants; teacher-consultees; and child-clients. The consultants were five master-level graduate students in the School Psychology Program at the University of Wisconsin-Madison. They ranged in age from 22 to 32 years

with a mean age of 27. Each of the consultants responded to a Project Assistant Position job posting that also served as an informed consent document (see Appendix A); each was generally naive about the research design and hypotheses of the study. None of the consultants had received previous training in behavioral consultation skills, although each had previous experience (course work) in applied behavior analysis.

Consultees for the project were teachers from the Madison Metropolitan School District in Madison, Wisconsin. The Project Director and Project Assistant met with 12 teachers of severely emotionally disturbed children, explained the nature of the project, and provided a written overview of the project activities (see Appendix B). From this group, 10 teachers volunteered for the project and signed consent forms (see Appendix C). From this group, five teachers were selected randomly for the experimental group and five for the control group. Teachers in the experimental group read guidelines regarding project expectations. These included a specific review of Procedures for Consultation Cases (see Appendix D), an overview of behavioral consultation (see Appendix E), and procedural guidelines for obtaining substitute teacher assistance (see Appendix F).

Clients for the project consisted of children referred by their respective teachers. Originally, each teacher was to refer five children from his/her respective classroom, but practical logistical factors made it impossible to work with more than a total of six children.

The teachers contacted each child's parents and informed them of the project. Formal letters were written to parents and they were asked to consent to project involvement in two phases. In Phase 1, the parent was informed that a graduate student would meet with the child's teacher to

discuss a problem the child was experiencing (see Appendix G). In Phase 2, the parent was informed that the consultant had met with the teacher and that a problem had been identified (see Appendix H). The intervention plan was specified on the Individual Education Plan from the Madison Metropolitan School District (see Appendix I).

Specific background information and the nature of the referral problems for the six children are as follows:

Client 1: Mike is 6 years old, is a white kindergarten student. After a series of foster home placements, he was adopted formally a year and a half ago. His adoptive parents are professionals who work for a major university. Mike has a 5-year-old adopted brother, who was also considered difficult to place. Mike is currently enrolled in an Emotional Disability class and receives speech and language services.

Mike appears to have a history of emotional/behavioral problems. His natural mother reportedly used a variety of drugs during her pregnancy and it was reported that Mike suffered some neurological damage. It is difficult at this time to determine his abilities and potential. Mike exhibits a number of problematic behaviors, including delayed/limited speech and language patterns, impulsive, unpredictable behavior; and delayed emotional development. In addition, Mike stopped taking the drug Ritalin that was used to control his behavior at home about midway through the consultation program.

Mike was referred by his teacher, Ms. Brown, in conjunction with a collaborative training/research project between the Madison Metropolitan School District and the School Psychology program at the University of Wisconsin-Madison. Mike's parents gave their permission for his

participation. Mike's specific behavior problem was defined as leaving the classroom without permission.

Client 2: Matt is a 9-year-old male currently enrolled in a classroom for emotionally disturbed children. His teacher referred Matt for participation in this project primarily because of his inability to complete his work. His teacher also described Matt as displaying memory problems and inappropriate giggling when anxious.

Matt is the youngest of three children, all currently residing at home. His father is a medical doctor and his mother is a homemaker. Matt is described as experiencing normal development until he had a very high fever that resulted in a severe seizure at age 4. His seizures continued and his condition was labeled as epilepsy. Matt had been on a number of medications over the years that had not fully controlled the seizures; last year, a medication combination was found that controlled his seizures effectively.

Matt's parents who have been very active in his education, and in the careful monitoring of his medical condition, have arranged for him to receive a complete neurological examination. A log of his behavior kept by his teacher and his mother, did not reveal any recognizable trends in Matt's behavior at school.

Several management programs were operating in Matt's class. Although these programs were highly effective for most children, Matt did not appear to respond. Therefore, his teacher requested assistance in evaluating Matt's ability to work independently.

Client 3: Paul is an 8-year-old male who was enrolled in a classroom for emotionally disturbed children. His teacher for the past year, Ms. Anderson, referred Paul for participation in this project, and consent was

obtained from his parents. The primary reason for referral was Paul's inappropriate noisemaking. His teacher also described Paul as being somewhat immature and noted that he sometimes talked in a "baby voice."

During the school year, Ms. Anderson sent notes to Paul's parents regarding his accomplishments and difficulties on a weekly basis; his parents signed the notes and returned them. They indicated that there was no inappropriate noise-making at home. Ms. Anderson conducted several home visits because that setting was less structured than the school environment.

Several management programs were in operation in Paul's classroom. For example, children received marks every 15 minutes for good behavior; these were traded in for prizes at the end of the day. Ms. Anderson also gave children an "ignore mark" if they ignored disruptive behaviors displayed by another child. Although these programs have been effective in controlling much of Paul's problematic behavior, they were not effective in eliminating his noisemaking. Therefore, Ms. Anderson requested assistance in evaluating and eliminating Paul's inappropriate noisemaking.

Client 4: Sherry is an 11-year-old girl who was placed in the ED program because of problem behaviors, including her inability to control her anger and to keep from fighting with other children. After working with Ms. Morris, the ED teacher, Sherry is now better able to control her temper. However, Sherry has gained a significant amount of weight since the school year began. Ms. Morris would like to discuss with Sherry's mother her concerns regarding Sherry's increased weight, her progress in controlling her anger, and other important school issues. However, communication between Sherry's mother and the school has been at a complete standstill for

18 months. Thus, Ms. Morris requested consultation services to help develop strategies to enhance and maintain home-school communications.

Client 5: John is a 9-year-old black male who was enrolled in a self-contained classroom for children with emotional disabilities. He was mainstreamed for art, gym, music, and third-grade reading. John was referred by his special education teacher, Ms. Johnson, for participation in a consultation research project. Consent for participation was obtained from John's mother.

Ms. Johnson described John's problem behavior as an exaggerated response to perceived or anticipated unfairness. Specifically, John generally felt that he had been or was about to be treated unfairly and immediately began questioning and/or complaining about the unfairness. In itself, this response was acceptable as an appropriate means for any child to insure his/her rights. However, John's response was typically exaggerated and included behaviors such as repeated questioning or complaining, mumbling, muttering, pouting, name calling, aggressive verbalizing, ripping papers and books, throwing materials, kicking, and aggression to the point that he had to be removed from the classroom. Generally the behaviors became aggressive only as the duration of John's response episode increased. This exaggerated response was assumed to be related to a fear of being treated unfairly, and to a lack of self-control in accurately assessing and accepting demands in a given situation.

Ms. Johnson reported that John's initial questioning and complaining seemed to occur daily, while the related aggressive responses occurred infrequently, perhaps once a month. Furthermore, Ms. Johnson stated that the off-task behavior (i.e., pouting or kicking) could last for more than

five minutes. Twice, however, John remained off-task for more than one minute, and complained/questioned 10 times about something "unfair."

Prior to the consultant's involvement, treatment of the problem consisted of providing a simple rationale or explanation to John, and then ignoring the subsequent behavior unless it necessitated restraint or removal from the classroom. While Ms. Johnson reported limited success, she felt John needed to learn how to react to unfairness appropriately and how to answer his own questions. She hoped to minimize John's response to unfairness by alleviating his concern of being treated unfairly and by teaching him self-control.

Client 6: Andy is an 8-year-old male child who was in a mixed first/second grade classroom for emotionally disturbed children. Andy is the youngest in a two-child family. His father is a researcher at a major university and his mother has remained in the home, and is the primary care provider for the children.

Andy was referred to this project for consultation by his teacher, Ms. Howel, for off-task behavior that included staring off into space, making faces, or inappropriately playing with items (e.g., pencils, rulers, doodlings), all behaviors that distracted Andy's attention from the lesson being taught. These behaviors lasted from a few seconds to several minutes if left unattended. The greatest problem with Andy's behavior occurred during group instruction. Ms. Howel believed that this behavior occurred as many as 200 times a day with no apparent antecedents, and that its only consequences seemed to be intrinsic (self-stimulatory) to Andy. Prior to the initiation of consultation there had been no systematic attempts to correct this behavior.

Setting and Materials

There were two major settings for the project. The initial training was conducted in three small therapy rooms in the Psychoeducational Clinic at the University of Wisconsin-Madison. The student trainees met with "consultees" for interview training sessions. All baseline, posttraining, and generalization sessions were audiotaped using a cassette tape recorder placed on a table between the student and the consultee.

The second training setting involved various public school settings in the Madison Metropolitan School District. All consultation sessions were audiotaped.

Experimental Design and Evaluation

Three types of project evaluation were conducted. In the training phase, a multiple baseline design with sequential replications across consultants was employed. This design represents a variation and extension of the more basic combined series multiple baseline design across subjects (Kazdin, 1982; Kratochwill, 1978). The baseline phases ranged from one to two sessions, each of which consisted of three consultation interviews: problem identification, problem analysis, and treatment evaluation. The training phase consisted of two measures across the five consultants. Following the training, each subject conducted one series of generalization interviews (i.e., PII, PAI, TEI) in which the skills learned during consultation training were applied to complex problems.

Individual consultation cases were evaluated through case study methodology (Kazdin, 1981; Kratochwill, 1985). The case study evaluation took into account the degree of objective information, the assessment

occasions, past and future projections of performance, type of effect, planned vs. post facto interventions, generalization, and follow-up.

The final level of evaluation involved a comparison of the experimental and control groups on a number of outcome variables (see below). As noted above, a comparison was made between the two groups (five control and five experimental teachers).

Consultees for Training

Each consultee (n=3) role-played the part of a special education teacher who had a child with a behavior/learning problem. The consultees were first-year graduate students in the School Psychology Program. Each of the consultees was responsible for learning three of nine problem scripts (described below) to work with during the training. After studying the scripts, the consultees were tested by the project assistant to ensure that they could recite the problem scripts verbatim. In addition, each session was audiotaped to monitor the integrity of their responses.

Client Problem Scripts

Client problem scripts were developed for nine analogue problems. The problem scripts used for the project were expanded from those developed by Kratochwill, et al. (1987) and included those frequently encountered by teachers of severely emotionally disturbed children: enuresis, behavior management, school phobia, hyperactivity, dyslexia, fighting, withdrawal, stealing, and aggressiveness. Each script provided information about hypothetical clients in the form of responses to expected questions from a consultant. Scripts were assigned randomly across the consultants. While a

consultant may have met with a consultee more than once, he/she was exposed to a different problem in each interview. (See Appendix J for a description of the problem scripts.)

Dependent Variables

The project measured three general domains of dependent variables.

Training (Phases I and II). A list of criterion objectives for each consultation interview had been developed (Kratochwill & Bergan, in press). The objectives consist of consultant verbal behaviors required for successful completion of each interview. In this project, the first dependent variable was the percentage of objectives met during each of the interview phases. The PII, PAI, and TEI include 22, 13, and 12 objectives, respectively (see Appendix K for a list of objectives and scoring key). Each consultant must meet a criterion of at least 80 percent during each initial training phase.

In addition to this measure, the consultant's interviews were coded using the Consultation Analysis Record (CAR) (Bergan, 1977). A specific description of the form, as well as criteria for coding the form, are presented in Appendix L. The form can be coded by a percentage method as well as by "bits" of information. Verbalizations across various aspects of the consultation process were coded in percentage form in this project.

Consultation Case Study. In each of the project's case studies, an individual target behavior was selected by the consultant and the consultee during the PII.

Group Data Comparisons. Outcome measures for comparing the experimental and control groups are presented in Appendix M.

Interview Coders.

Four individuals who were carefully trained in the standardized approach to behavioral consultation coded each interview. Observer training included an explanation of interview objectives, review of a manual for coding interviews (from Bergan & Kratochwill, in press), and practice in coding with the examiner until accurate and consistent performance was achieved. Each tape of all consultation sessions was transcribed, and observers coded each transcript. Specifically, the coding process involved identification of those interview objectives that had been met. All interviews (100 percent) were scored by the observers across all five consultants. A percentage of agreement was calculated based on the number of objectives met across the baseline, training, generalization, and school settings for the three phases of consultation (see Table 1). The overall

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Insert Table 1 about here

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agreement mean between observers across all settings was 88% during problem identification, 86% during problem analysis, and 86% during the treatment evaluation phase. Since percentage agreement may not always take into account consideration of agreement due to chance, overestimation of agreement can occur (Hartmann, 1977). Kappa is a statistic that corrects for chance agreements; reliability data are computed by subtracting the proportion of agreements that could be expected due to chance from the total proportion of agreements (Gelfand & Hartmann, 1984). In this study, Kappa was computed on the data coded by both observers across all settings,

yielding coefficients of .702 for problem identification, .642 for problem analysis, and .664 for treatment evaluation phases (see Table 2). Current

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Insert Table 2 about here

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guidelines suggest that acceptable levels of reliability fall in the .70-.90 range of percentage agreement and .60-.75 for Kappa measures (Gelfand & Hartmann, 1984).

School Observations.

Five individuals were trained as school observers. Each observer was required to read a training manual prepared for the project (see Appendix N), and to practice recording behaviors on a videotape depicting children interacting in naturalistic settings. Observer reliability in training was assessed to ensure accurate observational procedures in the classroom settings.

Training

Each consultant was exposed to a training package following a baseline phase of the project. Each received an applied guide to behavioral consultation (Kratochwill & Bergan, in press) and a videotaped model depicting the entire behavioral consultation interview process (i.e., problem identification, problem analysis, and treatment evaluation). Consultants were also required to read The Scientist-Practitioner: Research and accountability in clinical and educational settings by Barlow, Hayes, and Nelson. Upon completion of these components, consultants conducted analogue interviews with graduate student consultees. The first

posttraining interview sessions were conducted 7-10 days after dissemination of the training package. Subsequent practices and a second series of posttraining interviews were conducted following supervisor feedback, approximately 5-7 days after the initial posttraining interviews.

Generalization interviews were conducted approximately 5 days following the second posttraining interviews. These interviews allowed each consultant to role-play the entire consultation process with a highly experienced ED/BD teacher and to obtain exposure to an actual case within an analogue setting.

Components of Training. The training program consisted of four components: a manual, a videotaped model, role-playing, and performance feedback from the supervisor. The main component of training was an applied guide to behavioral consultation (Kratochwill & Bergan, in press) that presents a conceptual overview of behavioral consultation (see Appendix O for the Table of Contents). The manual is designed to familiarize mental health professionals with behavioral consultation techniques by presenting a standardized procedural interview format to be followed for each phase of consultation.

Each of the five chapters (Introduction, Problem Identification, Problem Analysis, Plan Implementation, and Treatment Evaluation) introduces a particular stage by reviewing the objectives of the stage, recommending procedural guidelines, and directing the reader through the specific interview tactics. Each chapter also contains an example of the particular interview type and a record form to be used in conducting the respective consultation interview (see Appendix P for interview guidelines). Each chapter is followed by a set of self-quiz questions and answers (see

Appendix Q). Graduate student consultants received the entire manual at once to encourage consistency throughout the consultation process.

As part of their training, the consultants also viewed a videotaped model depicting the behavioral consultation process. Each consultant viewed the tape following his or her completion of the manual and self-quizzes. (See Appendix R for a transcript of the interviews depicted on the videotape.)

Feedback was presented to the graduate students during posttraining and generalization phases. Following each posttraining interview, supervisor comments and feedback were shared to enhance future performance. Specific consultation considerations (i.e., criterion objectives and interpersonal behaviors) were reviewed, and further explanation and discussion was encouraged. Consultants also received various procedural guidelines for entry into the schools (see Appendix S) and for structuring their program reports for each case (see Appendix T).

As part of the project, a curriculum also was developed that emphasized research concerning the assessment and treatment of emotionally disturbed children. The curriculum incorporated material from recent textbooks that summarize research in this area, including The Practice of Child Therapy (Morris & Kratochwill, 1984), The Handbook of Child Psychopathology (Ollendick & Hersen, 1983), and Behavioral Assessment in Childhood Disorders (Mash & Terdal, 1981). Textbook readings were supplemented with recent reviews from professional journals in school psychology and related fields. Articles chosen described empirically validated assessment and treatment programs or reviewed such programs. In addition, the recent work of LaVigna and Donnellan (1986), Alternatives to Punishment: Solving the Behavior

Problems with Non-aversive Strategies, was presented to emphasize the use of non-aversive intervention techniques during consultation. Also, An Educative Approach to Behavioral Problems: A Practical Decision Model for Interventions with Severely Handicapped Learners by Evans and Meyer (1985) was recommended to consultants; the book provides a model for developing interventions. These materials were assigned to the graduate students as they became relevant to particular cases.

Consultant Satisfaction Measures

Following participation in the training project, each graduate student-consultant was asked to complete a training satisfaction questionnaire similar to the client satisfaction questionnaire (CSQ) by Larson, Attkisson, Hargraves, and Nguyen (1979). The CSQ has been recommended as a direct, practical, and cost-efficient measure in consumer satisfaction research (Bornstein & Rychtarik, 1983) and has been used in previous training research (see Kratochwill, et al., 1987). The project's major modification in the CSQ involved substituting "training" for "service" or "help" in instructions and in individual items. The questionnaire consists of an eight-item, Likert-type scale measuring satisfaction with the quality, amount, and effectiveness of the training received (see Appendix U). Questions were rated on a 4-point scale, with extreme satisfaction designated as 4 points, and extreme dissatisfaction as 1 point; total points ranged from 8 to 32 points.

Consultee Satisfaction Measures

Two teacher-consultee satisfaction measures were used in the project. The first was the Intervention Rating of Profile (IRP-15) (see Appendix V), a 15-item scale that was completed by teachers on the intervention developed during the PAI. Each item is rated on a scale of 1 to 6, reflecting differential levels of agreement with the intervention plan. Thus, the possible total range of scores on the IRP-15 is 15 to 90, with high scores reflecting a high level of agreement. The IRP-15 has been used in classroom research (Witt & Martens, 1983), and it has good psychometric properties (Witt & Elliott, 1985).

Following each case, consultees also completed a Consultant Evaluation Form (see Appendix W). The form consists of a cover page providing a rationale for the scale, and 12 questions evaluating the quality of consultation. Individual items are rated on a scale of 1 to 7, with high scores indicating greatest satisfaction with consultation services.

At the end of the school year, the five teachers in the experimental group were asked to complete a questionnaire on the training project (see Appendix X). The questionnaire was designed to solicit opinions on various procedural and logistical aspects of the project.

Results

Results of the study are reported in three general domains: training, individual case outcomes, and group comparative outcome data. Figure 1 presents results of the percentage of objectives met in consultation

Insert Figure 1 about here

interviews (problem identification, problem analysis, and treatment evaluation) over baseline, training, generalization, and school-based consultee contacts. Results are also presented in numerical form in Table 3. Baseline data for the five consultants indicate that on the average,

Insert Table 3 about here

they demonstrated only 41% of the interview objectives, with an individual range of 18% to 62%. During the first training phase, the five consultants met an average of 87% of the objectives, with an individual range of 68% to 100%. During the generalization phase, the consultants demonstrated a mean of 86% of consultation interview objectives, with an individual range of 69 to 100%. Figure 1 and Table 3 also include the data for the consultation objectives met during actual school contacts with the special education teachers-consultees. During this phase, the consultants met a mean of 78% of the objectives, with a range of 36% to 100%. The largest variation occurred in problem analysis.

Data presented in Figure 1 also were examined with a proportion of nonoverlapping data (PND) analysis procedure (Scruggs, Mastropieri, & Casto, 1987). This procedure is a descriptive means of analyzing time-series data and indicates the proportion of posttraining data that overlap with pretraining baseline data. The results of this analysis are presented in Table 4; the data indicate that the PND was 100% for most phase comparisons,

Insert Table 4 about here

with the exception of the baseline-school comparison for Subjects 1 and 2. However, for a second case, the consultant has a 100% PND for the baseline-school phase comparison.

In addition to an analysis of the specific objectives met, each of the consultant's interviews were coded using the CAR. Each interview tape was transcribed and coded by two independent observers. Tables 5 through 9 present individual data on consultants on message-content, message-process,

Insert Tables 5 through 9 about here

and message-control categories for the CAR. The most important data in the tables involve verbalizations in the actual school setting; our discussion focuses on this outcome. On the PII, the majority of the consultants' verbalizations should occur in the behavior, behavior setting, and observation areas of message content (Bergan, 1977; Bergan & Tombari, 1975). The message-process area requires an emphasis on specification, summarization, and validation. In the message-control domain, elicitors should be more frequent than emitters. Tables 5-9 show that these recommendations were basically followed by all consultants.

In the PAI, message content areas, frequent use of behavior, behavior setting, and plan should occur. The important message-process categories are specification, summarization, and plan. In the PAI, elicitors should

outnumber emitters in message control. Generally, the consultants used more emitters than elicitors in the message-control category.

In the TEI, the most frequent content areas are behavior, plan, and observation. The process categories again include specification, summarization, validation, and inference. As in the PII and PAI, elicitors are expected to be more frequent than emitters. Data from the tables again indicate that consultants used more emitters than elicitors.

Individual Case Outcome Data

As noted previously, data were collected on six clients in the present project. In this section, results for each client are presented.

Client 1

Background/Presenting Problem. Mike is a 7-year-old, white, adopted, kindergarten boy who appears to have a history of emotional/behavioral problems. Mike was enrolled in an emotional disability class, and received speech and language services. Mike's natural mother was reported to have used drugs during her pregnancy, and Mike was reported to have suffered neurological damage. Assessment of the extent of his abilities/disabilities is still incomplete. Currently he exhibits a number of problematic behaviors that include limited speech and language, impulsive/unpredictable behavior, and delayed emotional development. Referral was made by Mike's teacher, Ms. Brown, in conjunction with the project. Mike's specific problem was defined as leaving the classroom without permission.

Problem Identification and Analysis. Assessment procedures included a series of interviews between the consultant and consultee, and a frequency

count of Mike's leaving the room by Ms. Brown. The identified behavior occurred approximately once a day. No single antecedent emerged. It was believed that Mike's limited communicative, cognitive, and emotional capacities contributed to the unpredictable nature of his behavior. Consequences were examined to determine whether Mike's leaving the room was being reinforced. Attention to Mike during this time appeared to worsen the behavior.

Treatment Plan and Evaluation. Eliminating the identified behavior was the project's goal, but an occurrence up to twice a week was considered acceptable. The treatment procedure involved a structural change in the classroom; specifically, a hall was created in front of the door, which made leaving the room more distinctive. In addition, Ms. Brown provided verbal prompting to ask permission to leave the room whenever possible.

Data on the intervention and behavior appeared to show improvement but was unstable. After two weeks of treatment, Ms. Brown felt the identified problem had stabilized and was no longer a major problem. Consultant involvement was discontinued at that time.

Discussion/Recommendations. The treatment program was considered to be only partially successful. Lack of outside observation, unstable data, and the number of other behavioral interventions already in place or being put in place simultaneously may have interfered with the assessment and intervention. Recommendations were made to continue to address this problem, including additional structural interventions, and to limit the number of programs in which Mike is involved.

Client 2

Background/Presenting Problem. Matt is a 9-year-old male currently enrolled in a classroom for emotionally disturbed children. His teacher, Mrs. Taylor, referred Matt for participation in this project primarily because of his inability to complete his work. Matt also displays memory problems, anxiety, and lethargy that may be medication-related. Matt has had epilepsy since age 4, but only in the last year has an effective medication combination been found to control his seizures. Mrs. Taylor has tried several management programs with Matt but without success. Matt's parents take an active interest in his education and are willing to assist the teacher whenever possible.

Problem Identification and Analysis. Mrs. Taylor describes the primary behavior of concern as a lack of on-task behavior during independent seatwork. She is unsure of any specific antecedent or sequential conditions related to this behavior. The typical consequence for failure to complete class assignments is a request that the student finish the work during class snack time or recess. Baseline data were collected during Matt's best class (math) because on-task behavior was so infrequent in other situations. At the end of each 5-minute interval, a judgment was made as to whether he was primarily on- or off-task during that time period. Mrs. Taylor also collected data on the frequency with which Matt would respond to a verbal cue instructing him to continue working. An examination of the data showed that his on-task behavior ranged from 0% to 80%, and that his response to teacher cues ranged from 0% to 60%. The days on which Matt responded to cues were also the days on which a higher rate of on-task behavior occurred.

Treatment Plan and Evaluation. The treatment plan consisted of a number of steps. Mrs. Taylor divided the period into 10-minute intervals in which she assigned Matt a task that was due at the end of the period. He received two immediate reinforcers (a raisin and a card to color) contingent upon independent work. Mrs. Taylor gave clear cues to indicate to Matt that the program was in effect. She also cued Matt to return to the task when necessary. One week after the program was initiated, Mrs. Taylor noticed an increase in work completion. However, because there was a simultaneous change in his medication dosage, it was decided to evaluate the program again after two weeks and to make any necessary modifications at that time. Three weeks after program implementation, Mrs. Taylor reported that Matt was performing 100% of his assignments on a consistent basis in math class.

Discussion/Recommendations. Work completion during independent seatwork increased significantly after program implementation. Reinforcements, cueing, and smaller blocks of assignments appeared to have been important. However, it is difficult to determine the effect of Matt's medication change on the program. Suggestions for programming future generalization within the classroom were discussed with Mrs. Taylor. These included fading verbal cues, slowly increasing the time period in which reinforcement is delivered, asking Matt to evaluate his own work, stressing accuracy rather than independent work, and encouraging Matt's parents to employ similar procedures at home.

Client 3

Background/Presenting Problem. Paul is an 8-year-old male who was enrolled in a classroom for emotionally disturbed children. His teacher,

Ms. Anderson, referred Paul for participation in this project because of his inappropriate noise-making behavior. Several management programs were in operation in Paul's classroom, but these were ineffective in controlling his inappropriate noise making. For example, children received marks every 15 minutes for good behavior; these were traded in for prizes at the end of the day. Ms. Anderson also gave children an "ignore mark" if they ignored disruptive behaviors displayed by another child. Ms. Anderson indicated that no inappropriate noise making was noted by the parents at home.

Problem Identification and Analysis. Ms. Anderson described Paul's behavior as making animal noises, clicking, and other inappropriate nonlanguage sounds. She said Paul made these noises primarily for attention, but also for self-stimulation purposes. Ms. Anderson identified several antecedents of Paul's behavior, such as being frustrated with his work, entering a group, having a bad day, and "getting back" at other children. It was noted that the behavior usually occurred during unstructured or transition times. Typical consequences of Paul's behavior were lack of reinforcement, loss of recess time, or dismissal from the group, but these consequences were ineffective in controlling the behavior. In order to gain more information regarding the behavior, Ms. Anderson collected baseline data for 9 days. She recorded the type of noise, time of day, and antecedents and consequences of the behavior (see Figure 2). An

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Insert Figure 2 about here

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examination of the data revealed that the behavior was variable, ranging from zero to four times a day, and occurred at different times throughout

the day. It was noted that the noises usually occurred during unstructured times and that attention to the behavior usually served to increase its duration.

Treatment Plan and Evaluation. The initial treatment plan allowed Paul to earn 5 minutes of free time with a person of his choice when fewer than three inappropriate noises occurred during the day. For each noise occurrence more than two, 2 minutes were subtracted. Ms. Anderson also developed a chart to explain the program to Paul. One week after the program was implemented, Ms. Anderson reported a slight decrease in the number of noises made. The general format of the program was modified to incorporate a more positive orientation and to make it easier for Paul to understand. Paul began self-monitoring his noise-making behavior. A wider range of reinforcements also were included. In order to encourage appropriate behavior during unstructured times, Ms. Anderson engaged Paul in a variety of meaningful and enjoyable activities (e.g., cleaning the chalkboard). The data show that the program modifications served to increase the effectiveness of the program (see Figure 2).

Discussion/Recommendations. The plan appears to have been effective in decreasing Paul's inappropriate noise making. Although the noises were not eliminated, they were reduced to an acceptable level. It is possible that self-awareness of inappropriate noise making, through teacher prompts and later self-monitoring, contributed to the success of the program. Individual attention and rewards may also have been important. Further recommendations discussed with Ms. Anderson included: creating a larger reinforcement menu, incorporating natural reinforcers such as praise,

emphasizing self-evaluation, implementing a similar program in mainstream classes, and using less intrusive cues.

Client 4

Background/Presenting Problem. Sherry is an 11-year-old girl who was placed in the ED program because of an inability to control her anger. Since her acceptance in the program, ED teacher Ms. Morris reported that Sherry is now better able to control her temper. However, Sherry has gained a significant amount of weight. Ms. Morris would like to discuss her concerns regarding the increase in weight, her progress in controlling anger, and other important school issues. However, communication between the school and the mother has been at a complete standstill for the past 18 months.

Problem Identification and Analysis. Ms. Morris was concerned about her lack of contact with Sherry's mother. This lack of communication included the following:

1. Repeated efforts to reach Sherry's mother by phone had failed.

2. Ms. Morris' calls were never returned.

3. When forms were sent home for Sherry's mother's signature, only the pink daily forms were returned and signed. Forms that were not returned included Sherry's IEPs, field trip and swimming permissions, address change and "in case of emergency" forms.

4. When meeting times were arranged (e.g., M-team meetings), Sherry's mother consistently cancelled them or was unable to attend.

Ms. Morris' general goal was to establish contact with Sherry's mother. Two areas were of top priority and two specific goals were therefore

developed. The first was contact with Sherry's mother on the phone at least once a month, and preferably once every two weeks. The second goal was the signing and return of forms sent home with Sherry.

Treatment Plan and Evaluation. The plan to accomplish these two goals included many components. One involved the school social worker, who was to accompany Ms. Morris on a visit to Sherry's home. During the home visit, forms and meetings would be explained and concerns about Sherry would be discussed with her mother. A second part of the plan required Ms. Morris to call Sherry's mother more frequently. Ms. Morris planned to phone Sherry's mother not only on Fridays during regular parent-calling time, but also on other days and at various times of the day as well. Upon reaching Sherry's mother, Ms. Morris planned to keep a positive tone in the contacts. Finally, because the pink daily form is the only form that is consistently signed by Sherry's mother, Ms. Morris was to attach other forms needing a signature to the pink daily form sent home with Sherry every day.

Because of home-related concerns, the school social worker decided to take full responsibility for the home visits. Ms. Morris was able to reach Sherry's mother by phone twice in one week. The tone of the conversation was positive, and Ms. Morris discussed some forms that required her signature. Sherry's mother was agreeable. However, when Ms. Morris attempted to set up a calling schedule, Sherry's mother was reluctant.

Ms. Morris sent home one form to be signed per day in addition to the pink daily form. Many of these forms were signed by Sherry's mother and returned. Ms. Morris was generally satisfied with the plan outcomes. She was optimistic that communication with Sherry's mother would graduatelly become easier.

Discussion/Recommendations. In the first follow-up interview, Ms. Morris reported that she had not been able to contact Sherry's mother by phone that week, but had communicated via the pink daily forms. That week, the school social worker had been successful in making a home visit and was able to discuss Sherry's increasing weight and the fact that her clothes were getting uncomfortably tight. Because Sherry's mother was experiencing financial difficulties, the school social worker and Ms. Morris arranged to have some clothes obtained for Sherry.

In the second follow-up interview, Ms. Morris reported that Sherry has continued to control her temper, but had still been gradually gaining weight. Ms. Morris also reported that it had been very difficult to reach Sherry's mother by phone to discuss these and other issues with her. It required many daily calls to "catch" Sherry's mother. However, she has been signing and returning forms sent home on a regular basis. Mr. Morris attaches the necessary forms to the pink daily form, and underlines with a pink marking pen the spaces where Sherry's mother is to sign. This straightforward approach has been successful in acquiring needed signatures, thus allowing Sherry to go on field trips and to participate in other school activities that require permission, as well as on obtaining permission for other important special education procedures and programs.

Client 5

Background/Presenting Problem. John was a 9-year-old black child who was enrolled in a self-contained classroom for students with emotional disturbances. John's special education teacher described his problem behavior as an exaggerated response to perceived or anticipated unfairness.

John generally felt that he had been or was about to be treated unfairly and he would immediately begin questioning and complaining. This response was typically exaggerated and included repeated questioning, complaining, mumbling, muttering, pouting, aggressive verbalizing, ripping papers, throwing materials, kicking, and aggression to the point that John had to be removed from the classroom. These responses were labeled "off-task" behavior.

Problem Identification and Analysis. John's response was assumed to be related to a fear of unfairness and to a lack of self-control in the assessment and acceptance of a situation. His response was always preceded by the perception or anticipation of an event as "unfair." John's teacher noted that the questioning/complaining occurred daily, while a more extensive (i.e., aggressive) response happened once each month. Baseline data indicated that episodes did not last more than 5 minutes. Twice, however, John remained off-task for more than 1 minute, and he complained/questioned 10 times about something "unfair." When these behaviors did occur, the teacher responded with an explanation and then ignored subsequent behavior unless it necessitated removal from the classroom. His teacher felt that John needed to learn how to react to unfairness appropriately, how to answer his own questions, and how to control his behavior.

Treatment Plan and Evaluation. The behavioral goal included teaching John to assess a situation accurately in terms of "unfairness," and to control his impulsive, often inappropriate responses. Treatment evolved from a combination of several approaches to self-control and included both group activities and individual work. Group activities began with a class

discussion about rights and unfairness. The class learned about stopping on impulse, thinking about possible responses, foreseeing consequences, choosing responses, acting accordingly, and deciding whether the response worked. Each area was covered thoroughly by the teacher and was followed by class generation of ideas, modeling, coaching, role-playing, feedback, and homework assignments.

The teacher worked individually with John, using examples of his behavior. They generated and modeled alternative responses, and the teacher coached and praised John's efforts. A self-monitoring program was implemented in which John kept a record of situations in which he utilized self-control to stop an impulse. He and the teacher later discussed his record. Due to other extenuating classroom circumstances, this process lasted only six weeks. Nonetheless, a graph of the frequency and duration of John's behavior from baseline through five weeks of training showed an encouraging pattern (see Figure 3). Despite interruptions in training, John

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Insert Figure 3 about here

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was able to use self-control strategies to lower his questioning/complaining to only four occurrences in a 4-week period, with only one of these incidents resulting in more than 1 minute of off-task behavior. Furthermore, John's teacher reported an observable difference in his approach to potentially unfair situations. She believed that John had mastered the strategies of self-control.

Discussion. John showed a general improvement in his ability to use self-control strategies in situations in which he perceived himself as being

treated unfairly. There was a need, however, to insure maintenance and generalization of his new skills. These skills also needed to be expanded to self-control in general. Practice involving brainstorming, modeling, role playing, feedback, coaching, and homework that addressed unfair treatment was recommended. Follow-up conversations with John's teacher revealed that she began this expansion and observed a noticeable improvement in John's behavior. She remarked that John is now her best behaved student and is able to be mainstreamed for much of the day.

Client 6

Background. Andy is an 8-year-old male child who is currently in a mixed first/second grade classroom for emotionally disturbed children.

Problem Identification and Analysis. Andy was referred to this project for off-task behavior that included periods of time in which he would stare off into space, make faces, or inappropriately play with items (e.g., pencils, rulers, doodlings), distracting his attention from the lesson being taught. Ms. Howel, Andy's teacher, reported that this behavior occurred primarily during group instruction and as often as 200 times a day.

An observer was assigned the task of recording, through direct observation, the frequency and duration of occurrence of each of the three contributing behaviors. The observer also recorded any related information that may have been pertinent to the behavior occurrence (e.g., behavior description and sequential conditions). The same observer was scheduled into Andy's classroom on Fridays during math instruction.

Target behavior #1 was defined operationally as any inappropriate use of an object (e.g., scribbling, tracing, playing with a ruler or scissors)

during instructional time. Behavior #2 was identified operationally as any attempt by the child to use his hands or other objects to make an inappropriate face. Behavior #3 was operationalized as staring aimlessly into space (or other obvious displays of lack of attention not covered by the previous two definitions).

Treatment Plan and Evaluation. Treatment consisted of a token system that rewarded Andy for periods of instruction in which he did not make a face. Ms. Howel explained the program and the rationale to Andy. He was told that if he did not make a face during math instruction, he would be awarded shiny stars on a sheet of paper used to record his behavioral progress. At the end of the day, he would receive a sticker for each of the stars. This treatment was designed to create awareness on Andy's part by providing positive consequences for appropriate behavior.

Figure 4 presents data sheets provided by the observer. Tracking of the frequency of the behaviors revealed a downward trend in all three behaviors simultaneously.

Insert Figure 4 about here

Discussion/Recommendations. A positive trend was established, resulting in a decrease in the three contributing behaviors, and an increase in Andy's attentive behavior during group instruction. The following recommendations also were made:

1. Continue token system during group instruction.

2. To encourage generalization, stickers should be rewarded on a more varied time schedule.

3. Expand token system across all classroom settings.

4. Encourage parents to participate in the token system at home.

Comparative Outcome Data

Two project groups were formed for purposes of comparison. Information was gathered by observers who reviewed the Individual Education Program (IEP) of each child in the experimental (N=9) and control group (N=25). The form (see Appendix M) requested identifying information, specific information related to the IEP, and other child information (e.g., grade reports, parent-school correspondence). Table 10 presents quantitative data on various dimensions of the IEP. It can be observed that, with the

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Insert Table 10 about here

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exception of the uneven number of behavioral definitions and treatment strategies, there were virtually no differences between the experimental and control conditions. A relatively large difference is indicated between the two groups on the percentage of time that the children were mainstreamed (i.e., approximately a 21% difference). It must be emphasized that any comparisons between the two groups must be made with caution due to the small sample in the experimental group.

Several characteristics of the data are worth noting. Children in both groups had a reasonable number of short term objectives related to their annual goals. However, the number of well-developed behavioral definitions was relatively small when considering the criteria of objective, clear, and complete statements. Likewise, the number of well-developed treatment strategies by the same three criteria was very small.

Another noteworthy aspect of the data is the very small utilization of related service personnel. Special education teachers had the option of using occupational therapy/physical therapy, psychological, speech/language, and other services. It would appear that once the child is placed in a special education setting, the teacher may be somewhat insular.

Consultant Training Satisfaction

Each consultant completed a scale rating their satisfaction with the consultation training program. Items were rated on a 6-point Likert scale, with a rating of 1 indicating dissatisfaction, and 6 indicating extreme satisfaction. Assessment results by scale items are reported in Table 11. As noted in the table, the majority of items were rated 3.0 or higher.

Insert Table 11 about here

Items 3 and 5 received the lowest ratings. Table 12 presents training

Insert Table 12 about here

satisfaction data for all consultants. Out of a possible 32 points, consultants' scores ranged from 22-28 points. Overall, three of the consultants were satisfied and two were very satisfied with the training they received.

Consultee Satisfaction Measures

Each consultee completed a 12-item Consultant Evaluation Form. Results of this assessment for each of the 12 items are presented on a mean rating

in Table 13. Items were rated on a 7-point Likert-type scale, with 1

Insert Table 13 about here

indicating dissatisfaction and 7 indicating extreme satisfaction with the consultation services. The mean item ratings ranged from 4.0 to 5.4.

Teacher-Consultees also were asked to complete a 15-item intervention rating profile (IRP-15). Each item is rated on a scale of 1 to 6, reflecting differential levels of agreement with the intervention plan. The possible total range of scores is 15 to 90, with high scores reflecting a high level of agreement. As can be seen in Table 14, teachers' ratings

Insert Table 14 about here

ranged from 4.4 to 5.6 in mean ratings across the 15 items. Table 15 presents data for the CEF and IRP for each consultant in the project.

Insert Table 15 about here

Although the mean item rating was high for both scales, the range on raw scores was large for both.

For the five teachers participating in the consultation training project also completed an 11-item feedback form. Ten of these questions are presented here (the first question related to actual contacts with the consultants).

The teachers routinely indicated that the most positive feature of the consultation contacts was the opportunity to discuss problems and solutions

with a professional. They also appreciated obtaining materials from the consultants on various ways to treat children in their classrooms. The teachers also found it desirable to have someone who listened to their concerns and issues, since teaching emotionally handicapped children was considered somewhat stressful.

The teachers indicated that the most negative feature of the consultation contacts was the general lack of experience of the consultants in working with emotionally handicapped children, and their lack of involvement with the children in the classroom. That is, the teachers generally felt that the graduate students should spend more time in the classroom observing and interacting with the children, as well as gaining experience in working with this population.

The teachers were also asked whether or not they found the substitute teacher option helpful in their work with the training project. Each teacher indicated that this was not a viable option due to the time and effort involved in planning for a substitute teacher. Apparently, the school district required that the substitute needed a complete and detailed lesson plan in order to conduct classes. The special education teachers were required to develop these plans a task they considered time-intensive.

As an alternative to the substitute-teacher arrangement, teachers indicated that it may be desirable to provide additional time for which teachers would be reimbursed (e.g., after school hours). Another suggestion was the option of earning continuing education credits at the university.

Next, the teachers were asked to indicate what they found positive about the consultation model used in the project. The teachers indicated that the model developed "a collegial relationship," provided a sequential

and organized approach to working with problems, allowed specific focus on problems, and helped teachers focus and reflect on issues that were of paramount importance in a particular case.

Regarding negative aspects of the consultation model, some teachers felt that it created a barrier between themselves and the consultant, and that some of the questions appeared redundant. Other teachers indicated that while the model seemed well-suited to very specific overt behaviors that are relatively circumscribed and focused, it did not allow the consultant to address broader issues (e.g., family concerns or events outside of the classroom context).

Teachers also were asked for suggestions on how investigators might expand the scope of consultation activities. They reported that it would be helpful for consultants to spend more time with families, to have more involvement in the classroom, and to use some brainstorming techniques to facilitate problem solving during the consultation process.

The teachers also were asked to comment on the overall skill level of the consultants. Teachers generally were positive about the consultants' enthusiasm, but, as noted above, reported that consultants needed more experience working with emotionally handicapped children. Furthermore, the teachers reported that the consultants listened well, were sympathetic to the teachers situations, and were quite accommodating. An unusual comment from one of the teachers indicated that the consultants seemed to operate from a medical model perspective, even though they were conducting behavioral consultation.

In response to a question regarding more intervention skills training for consultants, the teachers indicated a large range of possible options,

including more observational skills in the classroom, social skills instruction, cognitive behavioral strategies, and even basic behavioral modification skills. Also, more training in techniques for facilitating generalization were deemed necessary. One teacher indicated that it would be important to teach additional relationship skills to the consultants to facilitate their interaction with teachers in applied settings.

Discussion

Results of the training project replicate the findings of previous training research in the fields of psychology and education. Specifically, previous research by Brown, et al. (1982) and Kratochwill, et al. (1987) provided a format for the teaching of behavioral consultation skills. This project extended the Kratochwill, et al. study. Specifically, the consultants were trained in behavioral consultation and each worked with cases in applied settings. Each reported successful utilization of the consultation model, including functional use of the interview formats as well as effective implementation of services in most cases.

This study falls into a body of training research in psychology that suggests that consultation skills can be taught using a standardized training procedure and formal interview guides. The research also extends the literature indicating that training manuals are effective in teaching interview skills (Miltenberger & Fuqua, 1985).

The current findings also support the notion that school psychology students trained with the behavioral consultation model generally use verbalizations that correspond to the CAR priorities (see Bergan, 1977; Bergan & Tombari, 1975). One issue still unanswered by the present project

is whether the CAR should be taught specifically during training to further facilitate the meeting of broad consultation objectives. In the current study, while consultants generally followed CAR-related categories, they also demonstrated verbalizations that fell outside of these categories.

In the past, consultants have encountered a number of barriers to delivering psychological services using consultation methods. One major problem has involved the lack of a systematic consultation training format. A second potential barrier relates to the integrity of the consultation process (Kazdin, Kratochwill, & VandenBos, 1986; Kratochwill, et al., 1987). In the current project, interview skills were operationalized and a competency-based criterion was identified and measured. The manual was self-administered and could be used further in specific consultation coursework for training and refining consultation skills. Unlike some of the other major models of consultation, it was possible to document the level of verbal competence demonstrated by the consultants. It remains unclear whether the manual, in conjunction with other training accoutrements, can be used within a consultation course to demonstrate the same consultation outcomes.

It is noted that the consultation manual contains a variety of cognitive and academic components that help ensure integrity in the implementation of consultation. For example, the manual provides monitoring sheets and interview guides that the consultant can use to code interview behaviors. It is quite possible that these are sufficient to ensure effective consultation; however, in the current project, a variety of other factors were deemed necessary to facilitate quality consultation services.

For example, procedural and logistical issues, as well as relationship variables, were identified as important.

Perhaps the most salient issues identified in the project related to the identification of target behaviors, the standardization and acceptability of behavioral consultation, and consultants' general lack of experience with the emotionally disturbed population. An important issue raised by consultees concerned the type and extent of assessment conducted (i.e, target behavior specification). In the project, consultation primarily involved an interview between a consultant and consultee. The consultee was generally requested to conduct several assessments through direct observation or academic evaluation. However, several consultees perceived this as a limited and narrow approach, and the complexity and severity of the cases may have required an extended assessment format to select appropriate target behaviors and interventions (e.g., considering distally related setting events, the environmental context of the behavior, and direct observations by consultants).

Standardization of consultation was necessary to maintain model integrity, to document implementation of the model, and to allow a standardized record of the interviews. However, strict adherence to the standardized consultation interview format presented a second area of potential difficulty. This was especially apparent when the theoretical orientation and/or professional practices of the consultee inadvertently conflicted with those of the consultant. Likewise, characteristics of the presenting problems (i.e., history, severity, duration, frequency) affected the degree to which a standardized approach was effective. Both consultants and consultees reported that the prestructured interview forms reduced

verbal flexibility during consultation and hindered attention to potentially critical issues.

Review of the consultation cases suggests that these potential difficulties are not necessarily a limitation of the behavioral consultation model, but rather are an indication of future training directions. Specifically, future training should address the importance of certain qualitative characteristics of the consultation process, including positive rapport, personal style, and effective communication skills (i.e., active listening, reflective understanding). Although the standardized interviews are intended to provide direction and maximize the probability of behavior specification and problem solution, certain qualitative characteristics of the interview will depend upon effective interpersonal and relationship skills employed by the consultant.

A third area of difficulty was the consultant's general lack of experience with the emotionally disturbed population, and related teacher, classroom, and curriculum considerations. The majority of consultant-trainees in the project were prepracticum level graduate students, with little or no experience with the ED/BD population. A strong knowledge base is critical in order to serve effectively as a consultant to teachers in these settings. Furthermore, direct experience in these classrooms is considered necessary (i.e., through child and classroom observations).

Another important factor relates to the actual supervision that occurred during the consultation process. It is unclear how supervision contributes to overall effectiveness of consultation skills, and the entire area of supervision has been neglected in research (Knoff, 1987).

Specifically, it is unclear how much feedback consultants should receive regarding their training, and how they will use this information to improve their consultation skills. For example, it is possible that consultants could use a self-evaluation strategy such as self-coding and more review of audiotapes from each consultation setting as an effective and cost-efficient means of training.

A future project direction could incorporate more specific training in the supervision dimensions of the consultation process. Supervision is conceptualized as a reflective problem-solving process. Specifically, experienced consultants serve as peer supervisors to help consultant-trainees address interpersonal and case-related considerations in the consultation relationship. Self-reflection and self-evaluation are critical components of the consultation and supervision processes. Consultant and supervisor trainees self-monitor the verbal behaviors and active thought processes that serve to frame particular experiences in consultation and supervision. The supervisor and consultant meet regularly, both prior to and following interviews, to monitor consultation progress.

This project was the first one reported to focus on working with teachers of severely emotionally handicapped children. While the consultation model has been used widely with a variety of problems, most of these applications have occurred within regular classroom settings (see Kratochwill, Sheridan, & VanSomeren, 1987). It appears that the complexity and severity of problems experienced by the teachers and consultants required considerably more time than those that might be part of a prereferral process or consultation with regular classroom teachers. For example, problem identification interviews lasted longer than did those

involving regular classroom teachers and multiple problems were identified. In this regard, most of the cases might be conceptualized as developmental consultation rather than simply as problem centered (Bergan, 1977). This conceptual difference has important implications for the use of consultation models with severely handicapped students. For example, it is apparent that application of the consultation model with special education populations may take a great deal of professional time relative to its application with less severe types of problems.

Generally, consultants were satisfied with the training but did offer a number of suggestions for improving the consultation process. Specifically, they felt that more direct experiences through classroom observations and more cases may have been helpful. Various consultee reactions and exposure to more realistic cases during training analogue interviews were also recommended. For example, potentially resistant consultees and realistically complex cases were not presented in the training interviews. Furthermore, more effective methods of "entry" into the school settings were suggested, such as teacher orientation regarding the specific goals, procedures, and expectations of the project. These and other considerations were incorporated into the subsequent training project.

The project provided further empirical support for a standardized training approach to consultation, and it further addresses the goal of making behavioral consultation a more effective and empirically based procedure for providing psychological services to handicapped children. However, there are several specific directions for future work in this area are clear. One goal involves increasing the number of children served by the project. Although a number of barriers existed to increasing the number

of cases served, future efforts might offer more supervision of consultants and reduce institutional barriers to the consultation process, thereby increasing the number of children served. Furthermore, data gathering was difficult due to the nature and severity of the problems experienced in the program. It is hoped that future programs will allow more specific data to be gathered on the actual clients.

References

Barlow, D. H., Hayes, S. C., & Nelson, R. O. (1984). The scientist practitioner: Research and accountability in clinical and educational settings. New York: Pergamon Press.

Bergan, J. R. (1977). Behavioral consultation. Columbus, OH: Merrill.

Bergan, J. R., & Kratochwill, T. R. (in press). Behavioral consultation in applied settings. New York: Plenum.

Bergan, J. R., & Tombari, M. L. (1975). The analysis of verbal interactions occurring during consultation. Journal of School Psychology, 13, 209-226.

Bergan, J. R., & Tombari, M. L. (1976). Consultant skill and efficiency and the implementation and outcomes of consultation. Journal of School Psychology, 14, 3-14.

Bornstein, P. H., & Rychtarik, R. G. (1983). Consumer satisfaction in adult behavior therapy: Procedures, problems, and future perspectives. Behavior Therapy, 14, 191-208.

Brown, D. K., Kratochwill, T. R., & Bergan, J. R. (1982). Teaching interview skills for problem identification: An analogue study. Behavioral Assessment, 4, 63-73.

Caplan, C. (1970). The theory and practice of mental health consultation. New York: Basic Books.

Fantuzzo, J. W., Sisemore, T. A., & Spradlin, W. H. (1983). A competency-based model of teaching skills in the administration of intelligence tests. Professional Psychology: Research and Practice, 14, 224-231.

Ford, J. D. (1979). Research on training counselors and clinicians. Review of Educational Research, 49, 87-130.

Gallessich, J., McDermott Long, K., & Jennings, S. (1986). Training of mental health consultants. In F. V. Mannino, E. J. Trickett, M. F. Shore, M. G. Kidder, & G. Levin (Eds.), Handbook of mental health consultation (pp. 279-317). Washington, DC: National Institute of Mental Health.

Gelfand, D. M., & Hartmann, D. P. (1984). Child behavior analysis and therapy (2nd ed.). New York: Pergamon Press.

Gresham, F. M., & Kendall, G. K. (1987). School consultation research: Methodological critique and future research directions. School Psychology Review, 16, 306-316.

Gutkin, T. B., & Curtis, M. J. (1982). School-based consultation: Theory and techniques. In C. B. Reynolds & T. B. Gutkin (Eds.), The handbook of school psychology (pp. 796-828). New York: Wiley & Sons.

Hartmann, D. P. (1977). Considerations in the choice of interobserver reliability estimates. Journal of Applied Behavior Analysis, 10, 103-116.

Hay, W. M., Hay, L. R., Angle, H. W., & Nelson, R. O. (1979). The reliability of problem identification in the behavioral interview. Behavioral Assessment, 1, 107-118.

Idol-Maestas, L. (1983). Special educator's consultation handbook. Rockville, MD: Aspen.

Iwata, B. A., Wong, S. E., Riordan, M. M., Dorsey, M. F., & Lau, M. M. (1982). Assessment and training of clinical interviewing skills: Analogue analysis and field replication. Journal of Applied Behavior Analysis, 15, 191-203.

Kazdin, A. E. (1981). Drawing valid inferences from case studies. Journal of Consulting and Clinical Psychology, 49, 183-192.

Kazdin, A. E. (1982). Applying behavioral principles in the schools. In C. Reynolds & T. B. Gutkin (Eds.), The handbook of school psychology (pp. 529). New York: John Wiley & Sons.

Kazdin, A. E. (1982). Attitudes and labeling biases toward behavior modification: The effects of labels, content, and jargon. Behavior Therapy, 12, 56-68.

Kazdin, A. E. (1982). Single case research designs: Methods for clinical and applied settings. New York: Oxford University Press.

Kazdin, A. E. (1983). Single-case research designs: Methods for clinical and applied settings. New York: Oxford University Press.

Kazdin, A. E., Kratochwill, T. R., & VandenBos, G. R. (1986). Beyond clinical trials: Generalizing from research to practice. Professional Psychology: Research and Practice, 17, 391-398.

Kratochwill, T. R. (Ed.) (1978). Single subject research: Strategies for evaluating change. New York: Academic Press.

Kratochwill, T. R., & Bergan, J. R. (1978). Training school psychologists: Some perspectives on a competency-based behavioral consultation model. Professional Psychology, 9, 71-82.

Kratochwill, T. R., & Bergan, J. R. (in press). Behavioral consultation: An individual guide. New York: Plenum.

Kratochwill, T. R., & VanSomeren, K. R. (1985). Barriers to treatment success in behavioral consultation: Current limitations and future directions. Journal of School Psychology, 23, 225-239.

Kratochwill, T. R., VanSomeren, K. R., & Sheridan, S. M. (in press). Training behavioral consultants: A competency-based model to teach interview skills. Professional School Psychology.

Larson, D., Attkisson, C., Hargraves, W., & Nguyen, T. (1979). Assessment of client patient satisfaction: Development of a general scale. Evaluation and Program Planning, 2, 197-207.

LaVigna, G. W., & Donnellan, A. M. (1986). Alternatives to punishment: Solving behavior problems with non-aversive strategies. New York: Irvington.

Mash, E. J., & Terdal, L. G. (Eds.) (1981). Behavioral assessment of childhood disorders. New York: Guilford.

Medway, F. J. (1979). How effective is school consultation: A review of recent research. Journal of School Psychology, 17, 275-282.

Medway, F. J. (1982). School consultation research: Past trends and future directions. Professional Psychology, 13, 422-430.

Medway, F. J., & Updyke, J. (1985). Meta-analysis of consultation outcome studies. American Journal of Community Psychology, 13, 489-506.

Miltenberger, R. G., & Fuqua, R. W. (1985). Evaluation of a training model for the acquisition of behavioral assessment interviewing skills. Journal of Applied Behavior Analysis, 18, 323-328.

Moon, G. W., Fantuzzo, J. W., & Gorsuch, R. L. (1986). Teaching WAIS-R administration skills: Comparison of the MASTERY model to other existing clinical training modalities. Professional Psychology: Research and Practice, 17, 32-35.

Morris, R. J., & Kratochwill, T. R. (Eds.) (1984). The practice of child therapy. New York: Pergamon.

Ollendick, T. H., & Hersen, M. (Eds.) (1983). Handbook of child psychopathology. New York: Plenum.

Peterson, L., Homer, A. L., & Wonderlich, S. A. (1982). The integrity of independent variables in behavior analysis. Journal of Applied Behavior Analysis, 15, 477-492.

Reschly, D. J. (1976). School psychology consultation: Frenzied, faddish or fundamental? Journal of School Psychology, 14, 105-113.

Scruggs, T. E., Mastropieri, M. A., & Casto, G. (1987). The quantitative synthesis of single subject research: Methodology and validation. Remedial and Special Education, 8, 24-33.

Schmuck, R., & Miles, M. (1971). Organization development in the schools. Palo Alto: National Press Books.

Smith, D. K., & Lyons, M. A. (1985). Consultation is school psychology: Changes from 1981 to 1984. Psychology in the Schools, 22, 404-409.

Verberg, E. M., & Repucci, N. D. (1986). Behavioral consultation. In F. V. Mannino, E. J. Trickett, M. F. Shore, M. G. Kidder, & G. Levin (Eds.), Handbook of mental health consultation (pp. 49-80). Washington, DC: National Institute of Mental Health.

West, J. F., & Idol, L. (1987). School consultation (Part 1): An interdisciplinary perspective on theory, models, and research. Journal of Learning Disabilities, 20, 1388-408.

Whang, P. L., Fletcher, R. K., & Fawcett, S. B. (1982). Training counseling skills: An experimental analysis and social validation. Journal of Applied Behavior Analysis, 15, 325-334.

Witt, J. C., & Elliott, S. N. (1985). Acceptability of classroom intervention strategies. In T. R. Kratochwill (Ed.), Advances in school psychology (Vol. 4, pp. 251-288). Hillsdale, NJ: Erlbaum.

Witt, J. C., & Martens, B. K. (1983). Assessing the acceptability of behavioral interventions used in classrooms. Psychology in the Schools, 20, 510-517.

Yeaton, W. H., & Sechrest, L. (1981). Critical dimensions in the choice and maintenance of successful treatments: Strength, integrity, and effectiveness. Journal of Consulting and Clinical Psychology, 49, 156-167.

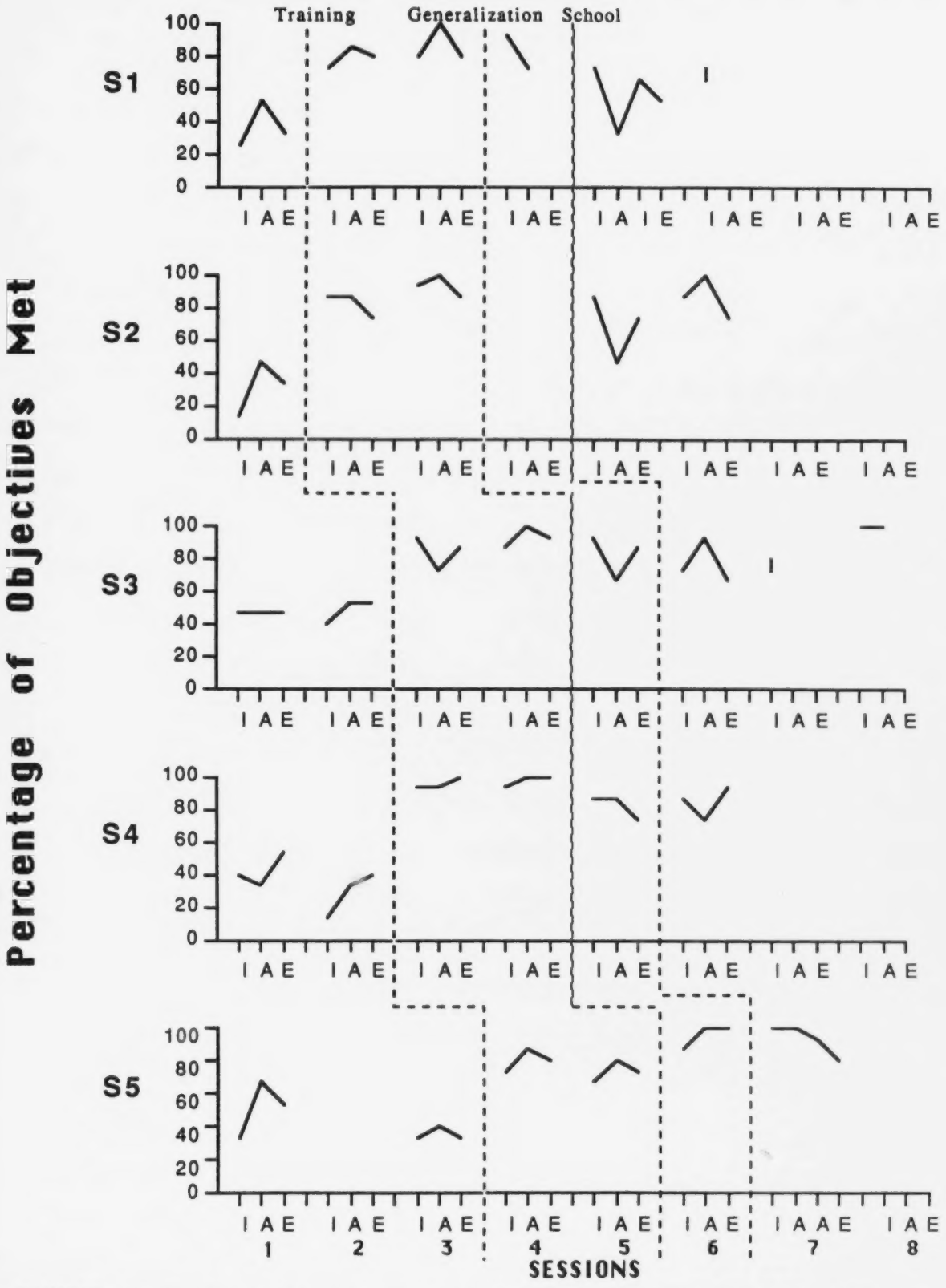

FIGURE. Percentage of criterion met by individual consultants across all phases of training. (I=Problem Identification Interview; A=Problem Analysis Interview; E=Treatment Evaluation Interview)

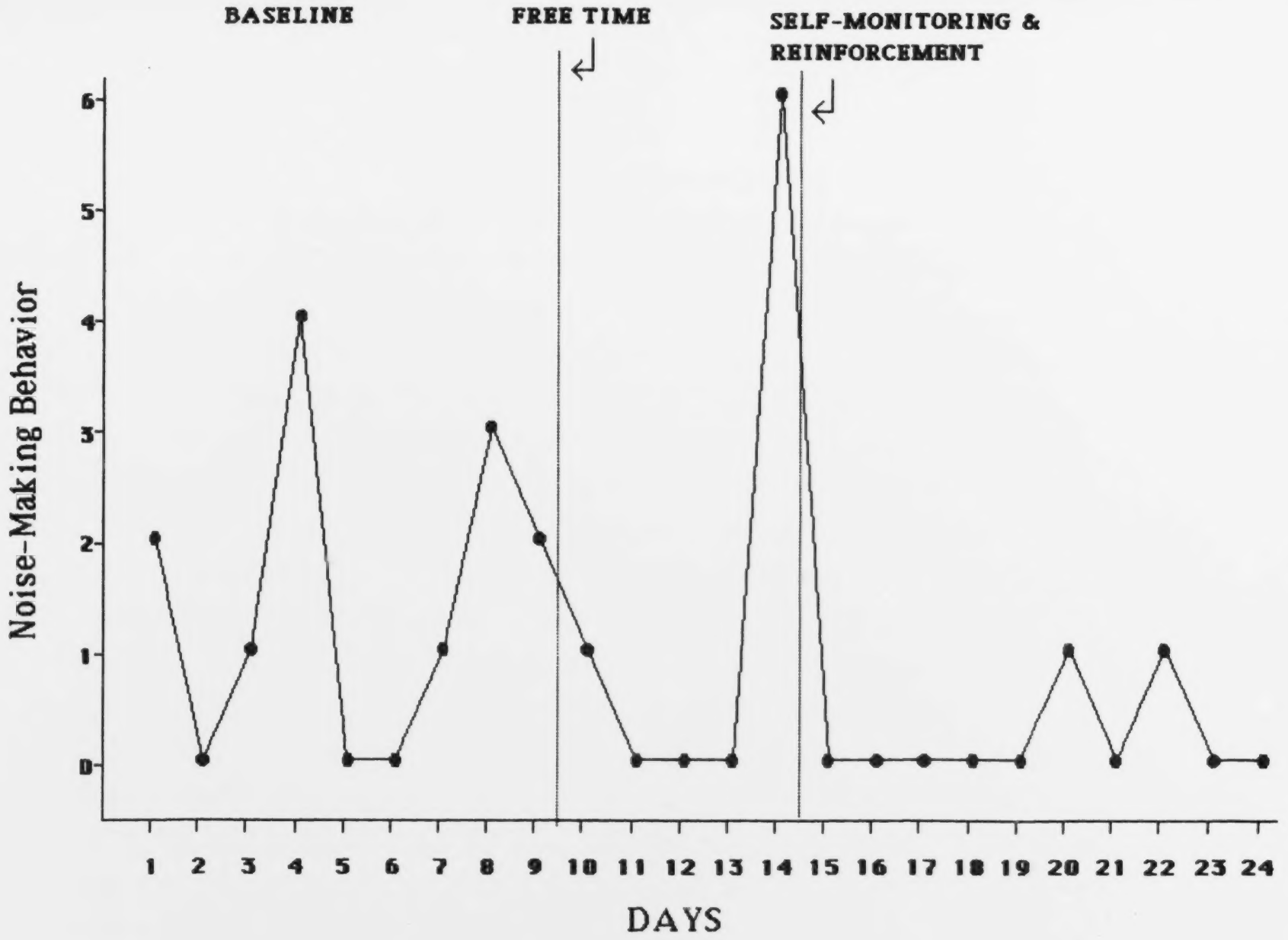

Figure 2. Daily frequency of client noise-making behavior.

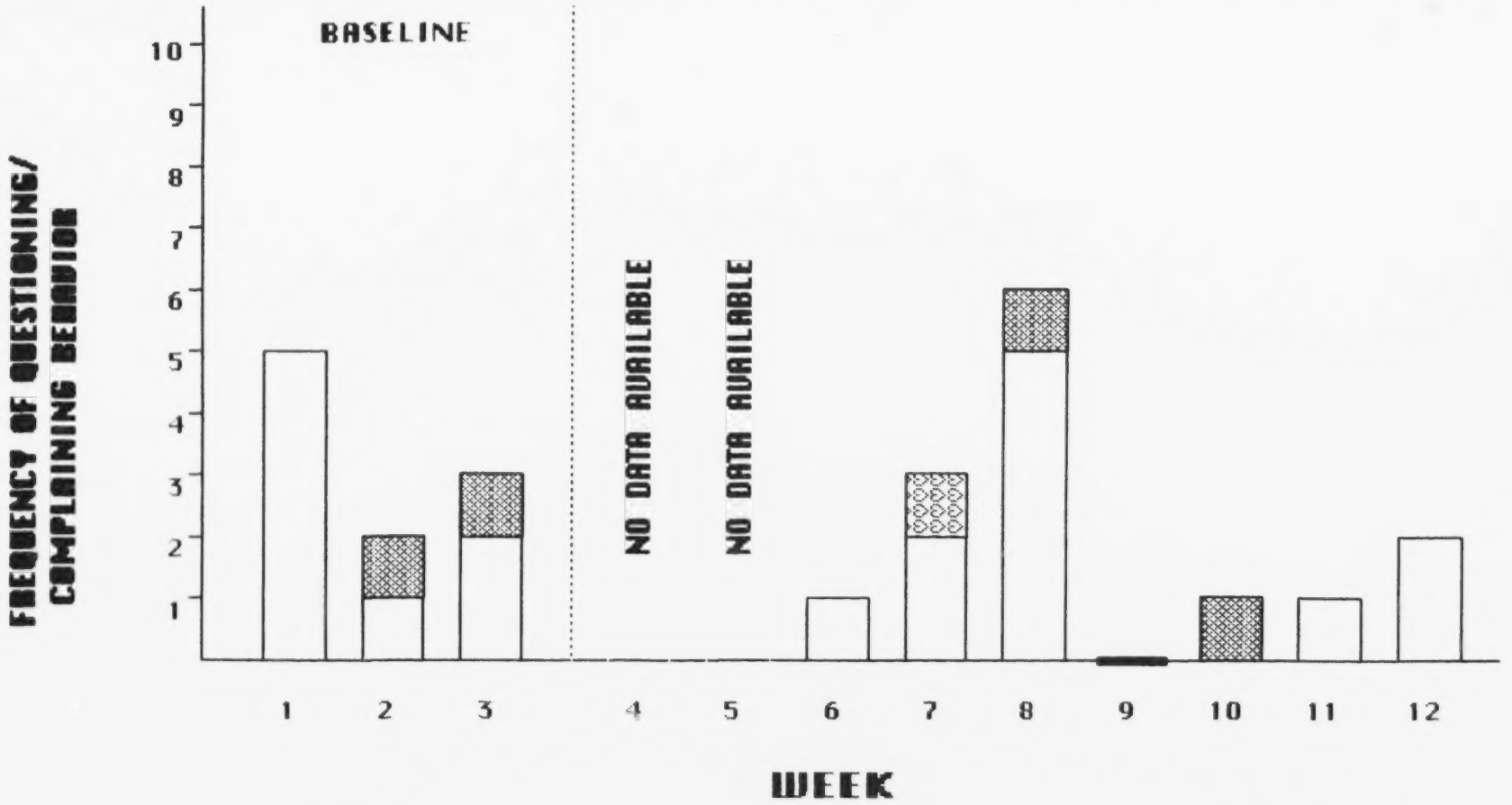

Figure 3. Frequency and duration of client's questioning / complaining behavior at weekly probes.

(Note : □ = off-task less than 1 minute;
▨ = off-task more than 1 minute;
▨ = off-task more than 5 minutes.)

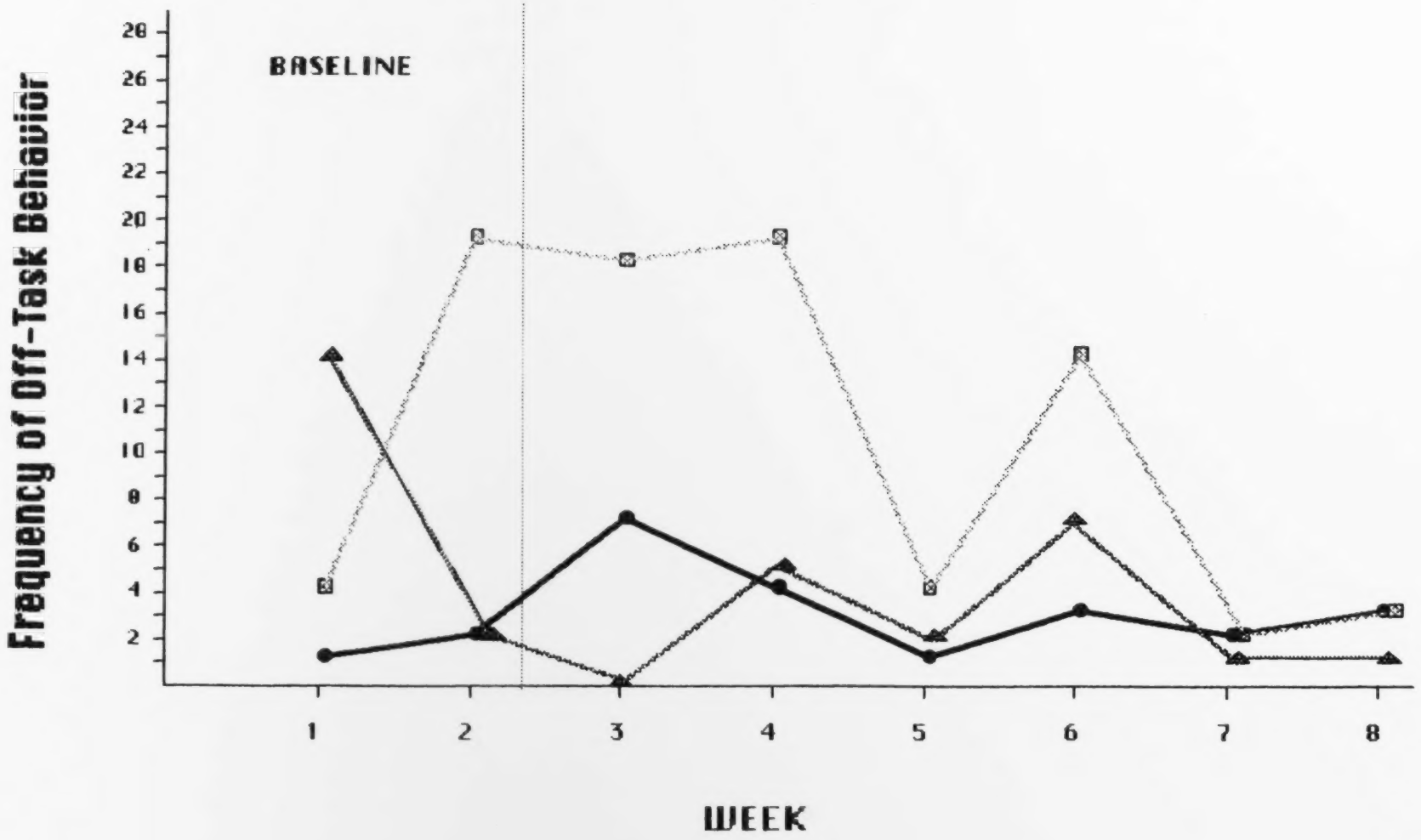

Figure 4. Frequency of client's off-task behaviors at weekly probes. (Note: ▲ = Scribbling; ● = Face-making; ⊠ = Staring into space.)

Table 1

Range of the Percentage of Agreement Between Two Raters Across All Phases of Training

Phase	PII	PAI	TEI	Total
Baseline	73-91%	77-92%	67-92%	67-92%
Mean	84%	84%	80%	82%
Training	82-100%	69-92%	75-100%	69-100%
Mean	91%	85%	84%	87%
Generalization	86-100%	85-100%	82-100%	82-100%
Mean	92%	92%	96%	93%
School	68-95%	64-100%	75-100%	64-100%
Mean	84%	82%	83%	83%
Total				64-100%
Mean	88%	86%	86%	85%

Note. PII = Problem Identification Interview; PAI = Problem Analysis Interview; TEI = Treatment Evaluation Interview.

Table 2

Kappa Coefficients Across All Phases of Training

Phase	PII	PAI	TEI	Total
Baseline	.645	.686	.615	.649
Post-Training	.628	.293	.437	
Generalization	.544	.770	.892	
School-Based	.631	.615	.663	
Total	.702	.642	.664	.678

Table 3

Range of the Percentage of Criterion Met by Consultants Across All Phases of Training

Phase	PII	PAI	TEI	Total
Baseline	18-45%	31-62%	33-55%	18-62%
Mean	32%	46%	43%	41%
Training	68-95%	77-100%	75-100%	68-100%
Mean	86%	91%	85%	87%
Generalization	86-95%	69-100%	73-100%	69-100%
Mean	90%	82%	85%	86%
School	63-100%	36-100%	56-90%	36-100%
Mean	80%	80%	73%	78%

Note. PII = Problem Identification Interview; PAI = Problem Analysis Interview; TEI = Treatment Evaluation Interview.

Table 4

Proportion of Nonoverlapping Data (PND) for Individual Consultants Across All Phases of Training

Consultant/ Subject	Phase Comparison		
	Baseline-Training	Baseline-Generalization	Baseline-Schools*
Subject 1	100%	100%	66%
Subject 2	100%	N/A	66% (C_1) 100% (C_2)
Subject 3	100%	100%	100%
Subject 4	100%	100%	100%
Subject 5	100%	100%	100%

Note. The PND for the baseline-school comparison was calculated on only those cases in which the three phases of consultation were completed.

Table 5 Percentages of Objectives Met by Individual Consultants Across All Phases of Training

Percentage of Consultant 1 Statements in the Message Content, Message Process, and Message Control Categories Across All Phases of Training

VERBALIZATION CATEGORY	TRAINING PHASE																					
	BASELINE						TRAINING			GENERALIZATION			SCHOOL Client 1			Client 2 (Incomplete)						
	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII
Message Content																						
Background Environment	16	1	0				0	0	0	0	0	0	0	0		5	4		6		0	1.6
Behavior Setting	18	24	26				40.3	43.2	0	25.6	31.4	2.1	39	17		28.5	27		37.5		11	36.9
Behavior	38	43	33				37	25.7	8.3	39.7	30.0	19.1	36	10		40	30		24.6		39	39
Individual Character-istics	5	1	0				0	0	0	12.8	4.3	0	6	2		2	4		3.2		6	3.7
Observation	0	2	10				16	4.1	0	9.0	4.3	4.3	10	3		9	.7		2.3		3	3.9
Plan	0	9	13				0	23	66.7	1.3	18.6	46.8	3	55		2	9.5		4.6		12	1.4
Other	23	19	18				6.7	4.1	25	11.6	11.4	27.7	6	13		12	26		27.3		29	13.4
Message Process																						
Negative Evaluation	0	0	0				0	0	0	0	0	0	1	1		0	0		.2		1	.4
Positive Evaluation	2	8	8				0	0	41.7	1.3	4.3	29.8	2	3		6	5		3.4		4	3.6
Inference	5	6	13				0	0	0	10.3	12.9	6.4	17	20		16	15		14.3		14	8
Specification	52	51	56				78.2	95.9	58.3	33.3	40	36.2	34	44		5	56		56.9		56	37.7
Summarization	27	13	8				16.8	4.1	0	35.9	25.7	8.6	24	15		13	8		7.2		11	11.6
Negative Validation	0	0	0				0	0	0	1.3	0	0	0	0		.6	.3		.3		0	0
Positive Validation	14	22	15				5	0	0	17.9	17.1	19.1	22	17		14.5	16		17.7		14	38.8
Message Control																						
Elicitor	52	46	41				35.3	40.6	33.3	37.2	38.6	21.3	17	9		29	19		11.1		19	20.2
Emitter	48	54	59				64.7	59.5	66.7	62.8	61.4	78.7	83	91		70.5	81		88.9		81	79.8

Table 6

Percentage of Consultant 2 Statements in the Message Content, Message Process, and Message Control Categories Across All Phases of Training

VERBALIZATION CATEGORY	TRAINING PHASE																				
	BASELINE			TRAINING			GENERALIZATION			SCHOOL											
										Client 1			Client 2								
	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI
Message Content																					
Background Environment	0	0	0	0	3.5	0	2	0	0	1.4	.4	0	2	4	0	0					
Behavior Setting	21	31	13	26	27	24	27	10	7	16.8	13	19.5	21.5	25	6	8					
Behavior	67	43	33	31	18	21	40	32	16	11.9	41	40	32.5	30	11	13					
Individual Characteristics	12.5	0	5	4	3.5	0	1	0	0	2.8	0	0	0	2	0	1					
Observation	0	22	13	28	5	3	17	3	4	0	21	2	5	19	5	6					
Plan	0	2	31	4	27	45	0	40	47	46.2	11	32	30	1	69	62					
Other	0	2	5	7	16	6	14	15	27	21	13	6	10	19	8	9					
Message Process																					
Negative Evaluation	0	0	0	0	2	3	2	3	2	3.5	0	0	2	1	.5	1					
Positive Evaluation	0	2	18	0	5	3	6	7	22	4.2	.2	6	12	8	5	3					
Inference	4	12	13	0	3.5	3	7.5	6	13	23.1	.2	2	14	6	3	2					
Specification	54	45	36	55.5	43	36	35	49	36	30.1	65	54	28	50	52	50					
Summarization	12.5	4	0	24	20	15	15	9	0	9.8	6	4.5	3	10	21	11					
Negative Validation	0	2	0	2	0	0	2	0	0	.7	0	0	2	0	0	0					
Positive Validation	29	35	33	18.5	27	39	33	26	27	28.7	29	33	39	25	17	32					
Message Control																					
Elicitor	79	59	72	72	62.5	57.5	62	38	38	18.2	17	29	37	39	19	48					
Emitter	21	41	28	28	37.5	48	37.5	62	62	81.8	83	71	63	61	81	52					

Table 7

Percentage of Consultant 3 Statements in the Message Content, Message Process and Message Control Categories Across All Phases of Training

VERBALIZATION CATEGORY	Training Phase																							
	BASELINE						TRAINING						GENERALIZATION			SCHOOL								
																Client 1			Client 2			Client		
	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PA	
Message Content																								
Background Environment	6	1	4	6	0	0	0	0	0	0	0	0	2.5	.4	2.7	1	0	0	1			0	1	
Behavior Setting	36	17	12	42	16	18	28	11	0	24.2	43.2	6.1	32	6.7	15.9	40	22.2	6	43			23	26	
Behavior	43	5.5	0	26.5	11	29	54	14	10	51	28.4	29.3	30.3	20.6	15.9	39	16.7	8	36			35	25	
Individual Characteristics	0	3	0	1	1	0	4	3	0	7	0	0	5.3	0	2.7	2.5	.9	0	2			7	0	
Observation	7	7	1	7	6	5	6	4	0	10.2	3.2	1	15.8	25.6	6.2	8	2.6	1	4			22	4	
Plan	0	64	73	11	61	35	1	60	76	1.3	15.8	45.5	1.4	39.3	45.1	1.5	33.3	40	3			3	24	
Other	7	2	9	6	4	13	9	8	14	6.4	9.5	18.2	12.7	7.5	11.6	8	24.4	44	10			9.5	19	
Message Process																								
Negative Evaluation	0	4	0	0	2	0	0	0	0	0	1.1	0	0	1.3	0	.5	3	0	2			0	1	
Positive Evaluation	0	5.5	16	4	8	24	1	3	10	5.7	7.4	17.2	3.9	5.9	10.6	6	11.1	12	5			4	6	
Inference	2	4	4	3	5	2.5	1	0	0	1.3	13.7	13.1	9.6	17.6	8	6	9	0	3			9	7	
Specification	47	48	39	47	44	36	70	85	83	26.8	28.4	24.2	29.6	36.4	37.2	30	44	61	50			57.5	47	
Summarization	30	12	6	21	15	8	22	6	2	38.9	29.5	14.1	26.8	9.2	7.1	34.5	7.7	0	7			11.5	8	
Negative Validation	0	1	0	0	0	0	0	0	0	0	0	0	0	2.1	.9	0	.4	0	0			0	1	
Positive Validation	21	25	34	24	26	29	6	5	5	27.4	20	31.3	30.3	27.6	36.3	23	24.8	27	32			18	30	
Message Control																								
Elicitor	51	47	46	63	48	36	42	21	28	33.8	29.5	26.3	23.6	16.3	17.7	19	23.9	18	10			11	12	
Emitter	49	53	54	37	52	64	58	79	72	66.2	70.6	73.7	76.4	83.7	82.3	81	76.1	82	90			89	88	

Table 8

Percentage of Consultant 4 Statements in the Message Content, Message Process, and Message Control Categories Across All Phases of Training

VERBALIZATION CATEGORY	Training Phase																				
	BASELINE						TRAINING						GENERALIZATION						SCHOOL		
	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI
Message Content																					
Background Environment	2	0	0	6	2	22	0	0	0	0	0	0	3.5	0	0	0	0	0			
Behavior Setting	47	7	7	34	1.3	11	47	21	0	31	24	0	37	7	6	23	13.6	18.5			
Behavior	40	18	9	33	20	18	45	18	21	44	27	30	38	21	17	40.8	22.1	19			
Individual Characteristics	1.5	0	0	2	0	0	1	0	0	3	0	0	2.5	0	0	1.6	1.3	0			
Observation	3	15	28.5	2	8	0	4	21	26	10	0	9	6	5	0	17.8	6	3.5			
Plan	1.5	52	48	3	21	16	0	35	29	1	42	45	7	47	58	47	30	37			
Other	4	9	7	18	35	33	3	5.5	24	11	6	15	6	20	19	12.1	27.1	22			
Message Process																					
Negative Evaluation	0	0	0	0	0	2	0	0	2	1	1.5	0	0	0	0	1.4	.6	1			
Positive Evaluation	1	6	7	0	0	2	2	5.5	6	6	4.5	24	3.5	2	7	9.3	11	19			
Inference	2	7	0	4	15	4	3	4	6	8	9	6	0	0	0	12.6	11	10			
Specification	40	59.5	34	47	73	64	40	40	43.5	38	44	36	49	70	72	40.6	44.5	52			
Summarization	23	7	23	24	5	2	39	24	18	24	12	18	16	2.5	0	17.3	6.9	2			
Negative Validation	0	0	0	0	0	0	.5	0	0	0	0	0	0	0	0	.3	.7	1			
Positive Validation	34	21	36	24	7	27	16	26	24	23	29	15	31	26	21	18.6	25.3	15			
Message Control																					
Elicitor	44	43	43	38	32	31	47	49	43.5	45	33.3	33	13	17	6	14.6	9	9			
Emitter	55.5	57	57	62	68	69	53	51	56	55	66.7	67	87	83	94	85.5	91	91			

Table 9

Percentage of Consultant 5 Statements in the Message Content, Message Process, and Message Control Categories Across All Phases of Training

VERBALIZATION CATEGORY	BASELINE						TRAINING						GENERALIZATION					SCHOOL Client 1	
	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	TEI	PII	PAI	PAI	TEI
Message Content																			
Background Environment	2	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3.2	5	3	0
Behavior Setting	25	17	12	43	22	0	26.2	5.6	25.7	34.5	14	0	29	20	3	22.6	17	28	1
Behavior	32	32	20	23	3	14	48.4	25.9	14.3	48.5	10.5	4	50.5	10	13.5	29.2	24	22	2
Individual Characteristics	3	0	0	3	0	0	2.5	5.6	0	1	0	0	1	0	0	3.9	0	1	1
Observation	24	12	0	20	23	0	13.1	3.7	0	12	14	4	13	9	2	22.6	12	9	28
Plan	0	26	44	5	45	68	2.5	33.3	28.6	0	49	70	1	50	71	0	18	4	12
Other	10	14	24	5	6	18	7.4	25.9	31.4	4	12	22	3	9	10	18.1	24	33	55
Message Process																			
Negative Evaluation	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
Positive Evaluation	3	3	20	5	0	14	2.5	14.8	25.7	6	5	22	5	3	13.5	1.3	6	4	10
Inference	2	17	8	0	0	0	4.1	13.0	14.3	0	3.5	11	2	9	5	3.9	6	4	0
Specification	61	57.5	48	80	94	82	55.7	35.2	51.4	42	54	52	39	51	39	40.0	57	71	63
Summarization	20	1.5	0	8	0	0	21.3	16.7	0	31	21	0	27	14	13.5	26.5	6	5	12
Negative Validation	0	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
Positive Validation	14	18	24	7	6	5	16.4	20.4	8.6	21	16	15	27	22	29	28.4	21	16	16
Message Control																			
Elicitor	32	27	36	55	28	32	48.4	40.7	20	45	58	41	32	46	41	30.3	13	9	4
Emitter	68	73	64	45	72	68	51.6	59.3	80	55	42	59	68	54	59	69.7	87	91	96

Table 10

Experimental and Control Group Comparisons on Treatment Dimensions

Treatment Dimension	Experimental Group (N=9)	Control Group (N=25)
Short Term Objectives	22.11	18.92
Behavioral Definitions	6.66	1.40
Treatment Strategies	22.66	18.32
Well-Developed Treatments	.33	.08
Successful/ Treatments Objectives	13.22	12.0
Related Services		
OT/PT	.11	0
Psych.	0	.08
Speech/Language	.22	.08
Other	.11	.24
Mainstream (% per year)	19.7%	32.96%

Table 11

Training Satisfaction Questionnaire

Item	$\bar{X}$ Rating
1. Quality of training	3.0
2. Received desired training	3.0
3. Effectiveness of program	2.6
4. Outside referral of program	3.6
5. Satisfaction of amount of training	2.8
6. Training effectiveness when working with client	3.0
7. General satisfaction of training	3.2
8. Return to program	3.2

Table 12

Data from Training Satisfaction Questionnaires

Consultant	Total	Mean Item Rating
1	28	3.50
2	23	2.88
3	23	2.88
4	26	3.25
5	22	2.75
Mean	24	

Possible Range: 8-32

Range: 22-28

Overall mean item rating: 3

Table 13

Consultant Evaluation Form

Item	X Rating
1. General helpfulness	4.5
2. Gave useful information	4.6
3. Similar primary goals	4.6
4. Helped find alternative solutions	4.2
5. Good listener	5.4
6. Identified useful resources	4.0
7. Assimilated well to school's environment	4.0
8. Encouraged a number of points of view	4.2
9. Collaborator versus expert	5.4
10. Helped apply content of discussion to classroom situations	4.2
11. Offer assistance without "taking over"	4.2
12. Would request some consultant services	5.0

Table 14

Intervention Rating Profile

Item	X Rating
1. Acceptable intervention	5.2
2. Generalization of intervention	4.8
3. Intervention effectiveness	4.6
4. Referral of intervention to other teachers	5.0
5. Behavior problem warrants this intervention	5.0
6. Suitability of this intervention	4.4
7. Willingness to use intervention in classroom	4.8
8. No negative side-effects	5.0
9. Appropriateness for variety of children	4.4
10. Consistent with previous interventions	5.6
11. Fairness of intervention	5.2
12. Reasonability of intervention	5.4
13. Pleased with intervention procedures	5.0
14. Appropriateness of intervention	5.2
15. Beneficial for child	5.2

Table 15

Data from the Consultant Evaluation Form (CEF) and Intervention Rating Profile (IRP)

Subject	CEF	IRP
1	60	70
2	61	89
3	47	55
4	73	72
5	31	88
Possible Range	12-84	15-90
Range	31-73	55-89
Mean	54	75
Mean Item Rating	5	5

Note. The CEF and IRP were obtained from all teachers involved in the project.